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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,396	04/27/2001	Rabindranath Dutta	AUS920010108US1	1343

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Duke W. Yee
Carstens, Yee & Cahoon, LLP
P.O. Box 802334
Dallas, TX 75380

EXAMINER

CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 04/20/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,396

Applicant(s)

DUTTA ET AL.

Examiner

Sheela C Chawan

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of draftperson's remarks (see attached PTO-948 paper number 4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103[©] and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 - 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komsthoeft et al. (US. 6,664,962 B1) in view of Ritchey (US.5, 495,576).

As to claims 1, 8 and 16, Komsthoeft discloses a method in a data processing system for examining a three dimensional image (abstract, generating images of the shadow based on three dimensional image), the method comprising:

presenting an object, wherein the object includes a set of views for different angles of view for the object (column 12, lines 48 - 62); and

Komsthoeft discloses computer graphics, interactive graphics system such as home video game platforms and generating shadows using full scene shadow mapping in a low cost graphics system. Komsthoeft is silent about specifics details of outputting non-visual depth map.

Ritchey discloses panoramic image based virtual reality and audio-visual system and method. The system comprises of

responsive to a user input to traverse a view from the set of views (column 30, lines 55- 67, column 31, lines 1-66), transcoding a depth map for the view into a non-visual output (column 15, lines 1-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Komsthoeft to include specifics details of outputting non-visual depth map. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Komsthoeft by the teaching of Ritchey in order to provide interactive input device operable by a viewer to cause the generation, alteration, display of 3-D images on said display as suggested by Ritchey at column 2, lines 45- 55).

As to claims 2, 9, 17, 24, 30 and 37, Ritchey discloses the method further comprising:

retrieving the depth map from a server (column 32, lines 22- 37).

As to claims 3,10,18, 25, 31 and 38, Ritchey discloses the method of claim 1 further comprising: generating the depth map from the view (column 30, lines 52- 60).

As to claims 4, 11, 19, 26, 32 and 39, Komsthoeft discloses the method wherein the set of views is described using an equation and further comprising: generating the depth map using the equation (column 2, lines 25- 36).

As to claims 5, 12, 20, 27, 33 and 40, Ritchey discloses the method wherein the non-visual output is an audio output (abstract, column 8, lines 25- 43).

As to claims 6, 13, 21, 28, 34 and 41, Ritchey discloses the method wherein the non-visual output is a tactile output (column 18, lines 34- 50).

As to claims 7, 22 and 35, Ritchey discloses the method wherein the transcoding step comprises:

transcoding a set of adjacent lines within the depth map (column 30, lines 53- 64).

Regarding claim 14, claim 14 recites similar limitation as claim 1 above and similarly analyzed except for the step of data processing system as taught by Ritchey.

The system comprises of

a bus system (column 8, lines 10-12);

a communications unit connected to the bus system (column 16, lines 2-16);

a memory connected to the bus system (column 16, lines 2- 16) wherein the memory includes as set of instructions (column 17, lines 4-14); and

a processing unit connected to the bus system (column 16, lines 2-16), wherein the processing unit executes the set of instructions to present an object (column 17, lines 4-14), and transcode a depth map for the view into a non-visual output in response to a user input to traverse a view from the set of views (column 14, lines 60- 67, column 15, lines 1-25, 58- 67, column 16, lines 1-44, column 30, lines 34- 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Komsthoeft to include specifics details of outputting non-visual depth map. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Komsthoeft by the teaching of Ritchey in order to provide interactive input device operable by a viewer to cause the generation, alteration, display of 3-D images on said display as suggested by Ritchey at column 2, lines 45- 55).

Regarding claim 15, claim 15 recites similar limitation as claim 1 above and similarly analyzed except for the step of data processing system as taught by Ritchey.

The system comprises of

- a bus system (column 8, lines 10-12);
- a communications unit connected to the bus system (column 16, lines 2-16);
- a memory connected to the bus system (column 16, lines 2- 16) wherein the memory includes as set of instructions (column 17, lines 4-14); and

- a processing unit connected to the bus system (column 16, lines 2-16), wherein the processing unit executes the set of instructions to present an object (column 17, lines 4-14), and transcode a depth map for the view into a non-visual output to present the different views of three dimensional object in response to a user input (column 30,

Art Unit: 2625

lines 52- 67, column 31, lines 1- 18) to traverse a view from the set of views (column 14, lines 60- 67, column 15, lines 1-25, 58- 67, column 16, lines 1-44, column 30, lines 34- 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Komsthoeft to include specifics details of outputting non-visual depth map. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Komsthoeft by the teaching of Ritchey in order to provide interactive input device operable by a viewer to cause the generation, alteration, display of 3-D images on said display as suggested by Ritchey at column 2, lines 45- 55).

As to claim 23, see the above rejection for claim 1.

As to claim 29, see the above rejection for claim 1.

As to claim 36, see the rejection of claim 15.

Other prior art cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cragun (US.5,511,187) discloses method and system for nonvisual groupware participant status determination in a data processing system.

Newman (US.6,502,032 B1) discloses GPS urban navigation system for the blind.

Cragun (US.5,461,399) discloses method and system for enabling visually impaired computer user to graphically select displayed objects.

Volk et al.(US.5,687,331) discloses method and system for displaying an animated focus item.

Keyson (US.5,784,052) discloses vertical translation of mouse or trackball enables truly 3D input.

Joic et al. (US.6, 674,877 B1) discloses system and method for visually tracking occluded objects in real time.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is 703-305- 4876. The examiner can normally be reached on Monday - Thursday 6 - 7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sce

Sheela Chawan
Patent Examiner
Group Art Unit 2625
April 14, 2004

J. K. Patel

Jayanti K. Patel
Primary Examiner